



Broadway-Pantano

Water Quality Assurance Revolving Fund Site
Tucson, Arizona

Community Involvement Plan



Broadway-Pantano Western Containment System

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Acronyms and Glossary of Terms

Disclaimer: All telephone numbers, email addresses, and contact names are subject to change after the date of this publication. The statistical data provided in the community demographics section is approximated based on information provided by the 2010 U.S. Census.

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Community Involvement Plan – Introduction

The Arizona Department of Environmental Quality (ADEQ) is committed to involving citizens in the cleanup of contaminated sites in Arizona per the Water Quality Assurance Revolving Fund (WQARF) program. Created under the Environmental Quality Act of 1986 to support hazardous substance cleanup efforts in the state, WQARF is dependent upon legislative appropriations, cost recovery from responsible parties, corporate income taxes, and special fees for its funding.

The WQARF program identifies sites that are most in need of cleanup and adds them to the WQARF Registry. Sites on the WQARF Registry receive primary consideration for the distribution of funds for investigation and cleanup. WQARF Registry sites are assigned a numeric score based on several factors including the types of contaminants present, the location of the contaminants, and the number of people who may be affected by the contaminants. These scores are used to help determine relative risk at the site and do not necessarily mean that there is a direct risk to humans or the environment.

The Broadway-Pantano site, located in east-central Tucson, Arizona, was placed on the WQARF Registry in 1998 and has a current score of 57 out of 120.

Arizona Revised Statutes (A.R.S.) § 49-287.03(B) and § 49-289.03 as well as Arizona Administrative Code (A.A.C.) R18-16-404 specify that a community involvement plan (CIP) be developed for each site on the WQARF Registry before beginning the Remedial Investigation. The purpose of the CIP is to provide a meaningful process for two-way communication between ADEQ and the public in order to keep the community informed about the progress of the site investigation and remediation. The CIP will accomplish this goal using the following steps:

1. Ensuring public access to project information in a timely manner;
2. Identifying a community involvement area and opportunities for community members and other stakeholders to participate in the decision-making process associated with the environmental investigation and remediation of the site;
3. Establishing a Community Advisory Board (CAB);
4. Designating an ADEQ spokesperson; and
5. Developing a plan for distributing site information to residents within the site's community involvement area.

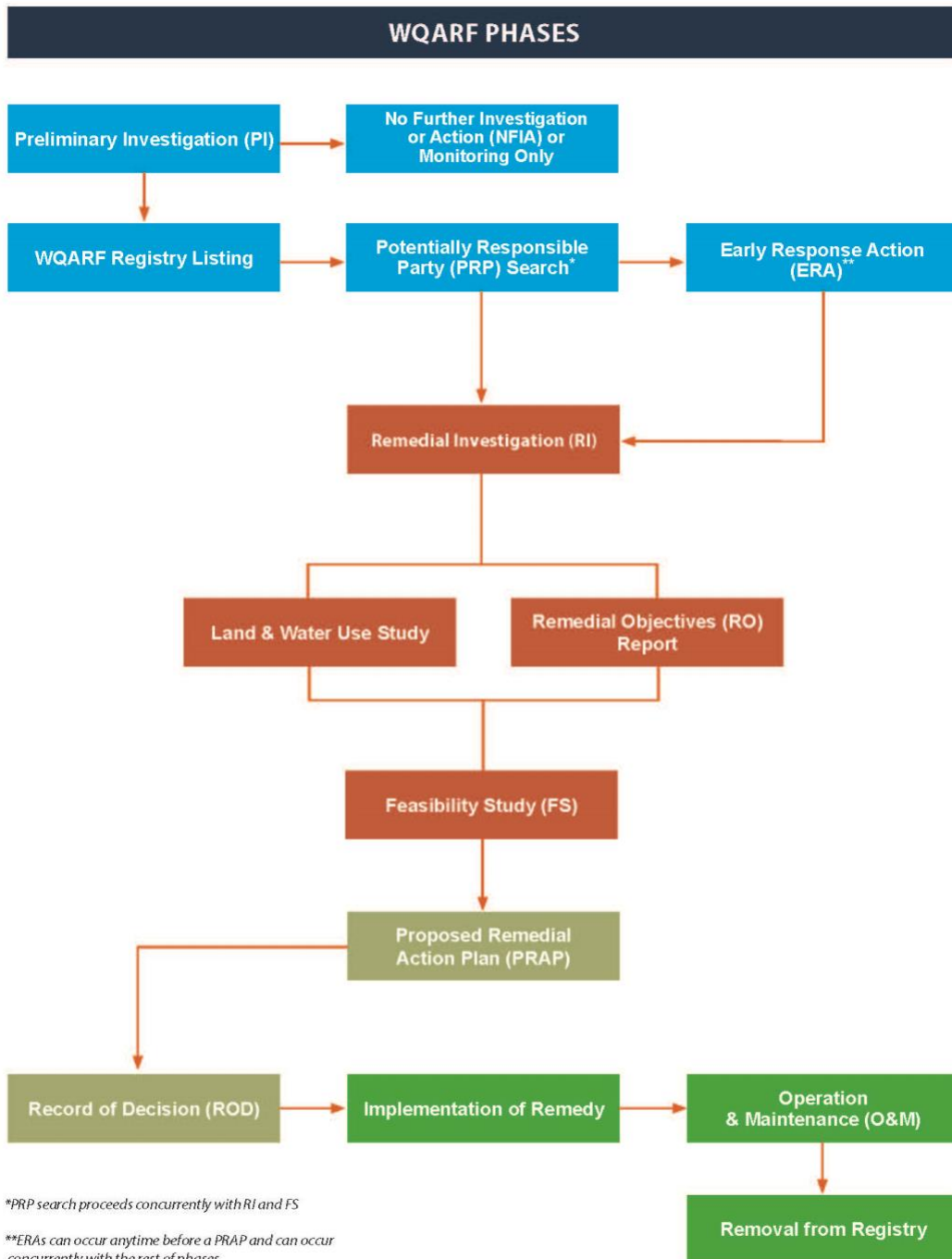
This CIP will describe ADEQ's role and public participation opportunities regarding the WQARF process. ADEQ community involvement staff will review and update this plan on a regular basis taking into consideration site-specific developments and public health and environmental impacts, as well as public comments and community concerns. ADEQ will also solicit and consider CAB input to this CIP.

A. WQARF Process

The goal of the WQARF process is to clean up sites with groundwater and/or soil contamination as a means to ensure that human health and the environment are protected. The WQARF process uses a step-by-step approach to thoroughly investigate contaminated sites and determine the best method for achieving site cleanup. This process can take months, years, or in some cases, decades, to complete. Because each site is different, the WQARF process helps determine which cleanup method is best for a specific site.

For sites where the contamination has minimal impact to humans, cleanup may be achieved by restricting land or water use and allowing the contamination to dissipate naturally. For this method, regular monitoring of the groundwater or soil would occur to ensure that the contamination continues to decrease. For sites where the contamination may impact human health, cleanup method may involve restricting land or water use, actively treating or filtering the groundwater to remove contamination, digging up any contaminated soils and removing it from the area, bioremediation/other in situ methods, or a combination of these actions.

The following WQARF process flow chart depicts the different phases in the WQARF process, from the initial investigation of a site that is suspected of having contamination, to the implementation of the cleanup method (also known as the remedy), to finally the eventual removal of the site from the WQARF Registry upon satisfactory cleanup. The WQARF process flow chart is color coded for ease of reference and corresponds to the Community Involvement Action Summary table in Chapter 4, where required community involvement activities by WQARF phase are discussed. Detailed definitions of each WQARF phase can be found in the glossary at the end of this CIP.



B. Designated Spokesperson

A designated spokesperson will inform the public of upcoming events, ensure that the CIP is implemented according to schedule, and act as liaison between ADEQ and the community. Additionally, the spokesperson will determine methods for personal contact, arrange for the availability of a translator at meetings as needed, and coordinate the recording of presentations. For further information regarding the Broadway-Pantano WQARF site, please contact the designated spokesperson at the following:

Community Involvement Coordinator

ADEQ

1110 West Washington Street, 6th Floor

Phoenix, AZ 85007

(602) 771-4189

Or

(800) 234-5677, Ext. 6027714189

Fax: (602) 771-4272

View Community Involvement Contacts Online:

<http://www.azdeq.gov/programs/waste/WQARF>

C. Information Repository and Website

An information repository of existing public documents pertaining to the Broadway-Pantano WQARF site is available for review both online and in person. Documents found in the repository include the WQARF Site Registry Report; CIP; Final Groundwater Operable Unit Remedial Investigation Report; and Draft Landfill Operable Unit Remedial Investigation Report; as well as site fact sheets, public notices, and materials from CAB meetings. Technical documents relating to future milestones in the WQARF process will be made available to the public as they are completed. Interested parties can review site information by visiting the information repository online or in person as follows:

Online

<http://www.azdeq.gov/node/993>

In Person

ADEQ Records Center

1110 West Washington Street

Phoenix, AZ 85007

(602) 771-4380

Or

(800) 234-5677, Ext. 6027714380

(Please call to make an appointment.)

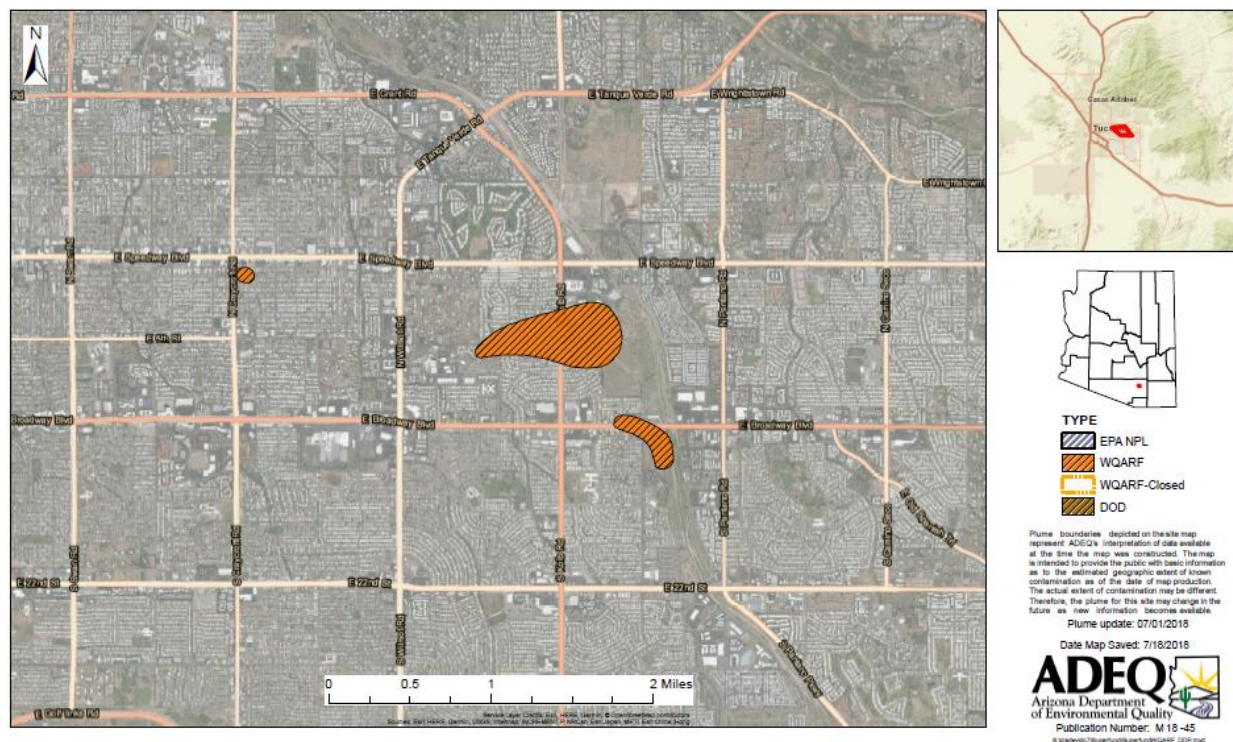
To make alternate arrangements to review documents in person at the location nearest you, contact the ADEQ Community Involvement Coordinator.

Chapter 1 – Site Overview

The Broadway-Pantano WQARF site is located in a mixed residential and commercial area of east-central Tucson, Arizona. The site was placed on the WQARF Registry in 1998 with an eligibility and evaluation score of 48 out of a possible total of 120. In 1999, the site was re-evaluated and the site score was increased to 57. The major factor leading to the site's score was the presence of contaminants in groundwater at levels exceeding Arizona Aquifer Water Quality Standards. Scores are used to help determine relative risk at the site and do not necessarily mean that there is a direct risk to humans or the environment.

The site consists of the closed municipal Broadway North Landfill and the closed municipal Broadway South Landfill, and associated plumes bounded approximately by Speedway Boulevard to the north, Calle Madero to the south (South of Broadway Boulevard), Pantano Wash to the east, and Craycroft Road to the west.

Broadway-Pantano WQARF Site – Tucson, Arizona



The groundwater contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride. Methylene chloride and *cis*-1-2-dichloroethene, which historically have been considered contaminants of concern, have not been detected in the site groundwater at a level exceeding Arizona Aquifer Water Quality Standards since 2005. The site soil contaminants of concern include arsenic, cadmium, chromium, and lead. In 2006, ADEQ separated the groundwater part of the Remedial Investigation from the landfill part of the Remedial Investigation (to expedite the groundwater cleanup at the site) and the landfill and groundwater components became separate operable units of the Broadway-Pantano WQARF site.

In December 2012, the Final Groundwater Operable Unit Remedial Investigation Report was made available to the public.¹ In November 2013, ADEQ completed and issued the Draft Landfill Operable Unit Remedial Investigation Report for public comment. In March 2014, ADEQ completed and issued the Proposed Landfill Operable Unit Remedial Objectives Report for public comment. These two draft landfill operable unit reports were finalized in 2014.

The Feasibility Study (FS) was finalized in June 2017. The anticipated date for the proposed remedial action plan (PRAP) is fall of 2018.

For more detailed information about the history of the Broadway-Pantano WQARF site, please refer to Appendix A (Site History) of this CIP.



**Monitor Well on Residential
Street Right-of-Way**

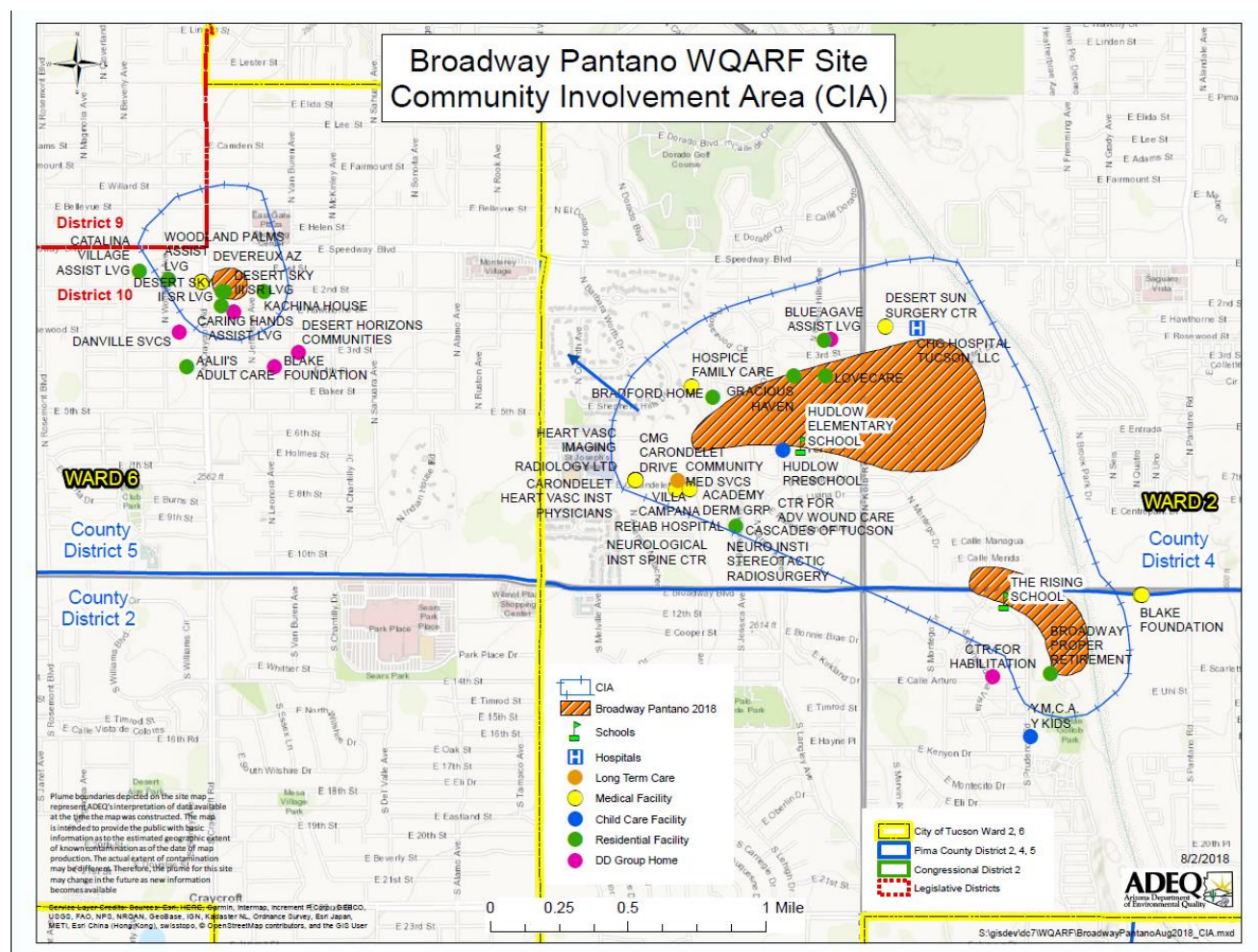
¹ The Final Groundwater Operable Unit Remedial Investigation Report was made available to CAB members and interested parties after it was finalized in June 2012, but was not released to the public until December 2012.

Chapter 2 – Community Profile

A. Community Involvement Area

ADEQ has established a community involvement area for the site per A.R.S. § 49-289.02(A) and (B). A community involvement area is established to designate a geographic area to which mass mailings will be delivered. Community involvement area boundaries are determined based on site-specific characteristics such as the affected media (i.e., soil, surface water, or groundwater), exposure routes, proximity to residential areas and public facilities, and level of community interest. The community involvement area may change as new information is received.

The map below illustrates the 2018 community involvement area for the Broadway-Pantano WQARF site.



B. Community Demographics

In 2010, the population of Tucson, the second most populous city in Arizona, was 520,116 (as reported by the 2010 U.S. Census). The community involvement area boundary for the Broadway-Pantano WQARF site encompasses four zip codes (85710, 85711, 85712, and 85715) and is estimated to contain approximately 66,262 households. The Broadway-Pantano site is located within the boundaries of the City of Tucson and consists of a mixture of commercial businesses, light industrial businesses, warehouses, and residential neighborhoods.

According to the 2010 U.S. Census data, the total population for the zip codes encompassed by the community involvement area was 146,058, with an average household size of 2.16 persons. Residents of the area consisted of more homeowners (54.3%) than renters (45.7%). The median resident age is 41.3, which is older than the median age for Arizona residents as a whole (35.9).²

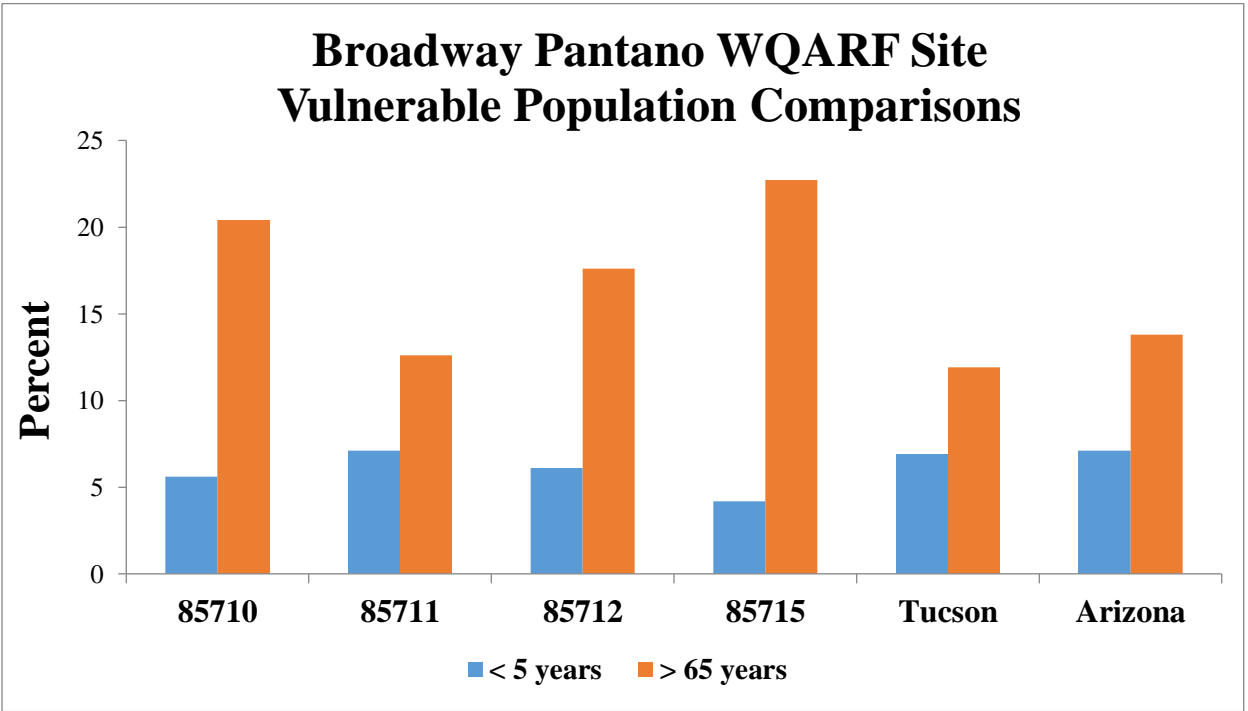
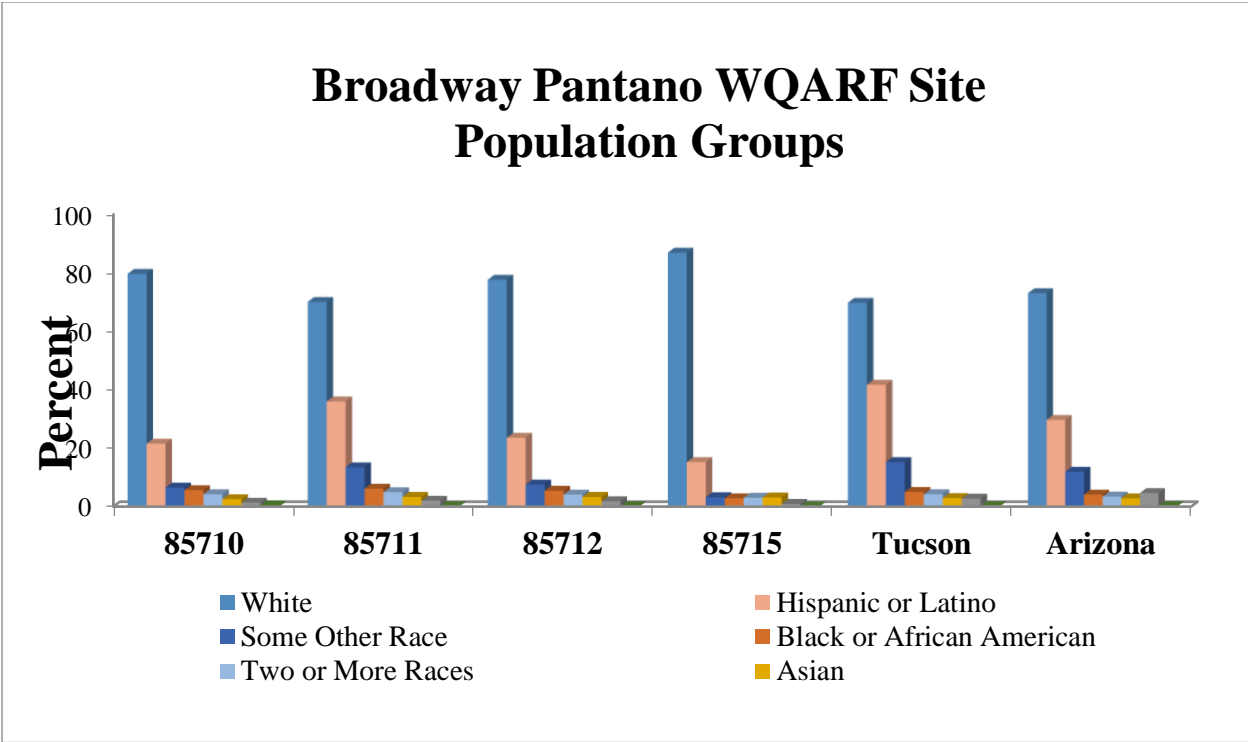
As represented in the Population Groups graph that follows, the 2010 U.S. Census data demonstrates that residents in the Broadway-Pantano WQARF site community involvement area identify themselves as approximately 78.5% White; 7.7% Some Other Race; 5.0% Black or African American; 4.0% Two or More Races; 3.0% Asian; 1.5% American Indian or Alaska Native; and 0.2% Native Hawaiian.³ According to the U.S. Census Bureau, people of Hispanic or Latino descent may be of any race. People identifying themselves as Hispanic or Latino within the Broadway-Pantano WQARF site community involvement area comprised 24.0% of the population, which is lower than the 29.6% average Hispanic and Latino population for the State of Arizona.

All percentages provided in the following Population Groups graph and the previous two paragraphs are median averages of the 2010 U.S. Census data for the zip codes within the Broadway-Pantano WQARF site community involvement area.

ADEQ also looks at the community as a whole with an emphasis on the percentage of people who are unusually sensitive to contaminants. These people are those who are under the age of 5 or over the age of 65, as well as those with health issues. The Vulnerable Population Comparisons graph that follows is based on 2010 U.S. Census data and presents the percentages of age-sensitive populations within the Broadway-Pantano WQARF site community involvement area.

² Calculations are an average of the four zip codes.

³ Percentages are an average of the four zip codes and are rounded to the nearest tenth and thereby do not total 100 percent exactly.



For further demographic information regarding the community involvement area, please refer to the listing of neighborhood associations, community schools, and vulnerable population centers in Appendix B, and local government officials in Appendix C.

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Chapter 3 – Community Issues and Concerns

In order to better understand the community and its concerns, ADEQ conducted telephone interviews with the community and CAB members who have lived or worked in the area surrounding Broadway-Pantano WQARF site. The CAB members are listed in Appendix D. The following is a summary of their common concerns involving the environment, health, and ADEQ outreach activities.

A. Environmental and Health Concerns

All of the interviewees knew that the Broadway-Pantano site is on the WQARF Registry and that previously it has been used as landfill property by the City of Tucson and Pima County. Most of the interviewees were familiar with the names of the site contaminants and believe that the groundwater contamination is a direct result of previous landfill activities. Some of the interviewees mentioned the dross contamination at the site. Approximately one third of the interviewees first heard about contamination at the site in the mid-to-late 1980s; the remaining interviewees learned about the site in the late 1990s.

Environmental and health concerns expressed by the interviewees spanned a variety of topics. At least half of those interviewed were concerned about a lack of security at the site and the ongoing “wildcat” dumping. It was noted that the fence surrounding the site is not completely secure and that the public continues to access the property and use it for dumping. All of the community and CAB members interviewed were concerned about the groundwater plume and migration of contaminated gases. The interviewees noted that because remedial activities have been shut down for several years due to funding issues, they were uncertain about the status of remedial activities at the site. Specific questions asked by the interviewees were as follows:

- Is the City of Tucson water supply protected from the groundwater plume?
- Has the groundwater plume been stopped or has its direction been reversed?
- What is the status of the migration of contaminated gases? Is the state tracking the movement of the gases like they are the groundwater?
- Has there been a rebound in the levels of contaminated gases since the vapor extraction system was shut down?
- What is the current status update of the dross area on the site?

The concerns expressed by community and CAB members relating to the current site status echoed their larger concern about the future of the site, possible health issues related to the site, and the condition of the overall water supply for the City of Tucson. One interviewee commented that the “aquifer” closed because of the groundwater contamination was the same aquifer that the City of Tucson Water Department had planned to use for the next 20 years. Concern was expressed about having a replacement water supply. Almost all of the interviewees wanted to know about the overall remedy for the site, as well as future investigations and eventual cleanup.

Additional concern from several CAB members included the availability of money to continue the site cleanup and a desire for the state to be proactive rather than reactive. There was also concern about the timing of the CAB meetings, noting that the meetings were held on an inconsistent basis.

B. Outreach and Other Concerns

Interviewees provided the following feedback and suggestions on current and future outreach pertaining to the Broadway -WQARF site:

- Interviewees stated that they received information on the WQARF site primarily from U.S. Mail and email notices, with some interviewees noting information obtained in CAB meeting handouts.
- Almost all interviewees preferred email as the method of communication between ADEQ and community.
- Suggestions for other methods of communications included:
 - Flyers to neighborhood associations,
 - Articles in newspapers,
 - Social media (Facebook and Twitter),
 - Television announcements, and
 - Newsletters (Metro Water or City Council newsletters).
- Some interviewees noted site information can be technical and recommended using simpler language and more graphics for clearer communication.
- One interviewee recommended that ADEQ put the site information repository online.

The majority of interviewees stated that, aside from environmental or health concerns, the primary concern at the site was the lack of funding available for cleanup actions. A lack of funding was cited as the cause for slow progress in site cleanup, temporary stoppages in cleanup work, and ultimately a lack of public interest because of the slow cleanup process. Some interviewees suggested increasing lobbying efforts at the state level to provide more funding to clean up the site.

C. Response to Community Issues and Concerns

ADEQ uses the information gathered from community interviews, CAB and public meetings, and direct contact to ensure that future outreach activities and materials are able to address community questions and concerns as well as keep the community informed of WQARF site activities. Additionally, community feedback informs ADEQ outreach practices and allows the communication techniques noted in Chapter 4, Section B to be tailored to the specific needs of the community.

Chapter 4 – Community Involvement Action Plan

In addition to providing the framework for the state to investigate and clean up contaminated sites, the WQARF program also requires that ADEQ involve the community in the cleanup process. The following Community Involvement Action Summary table describes the required community involvement activities according to each WQARF phase and illustrates where the Broadway-Pantano site is in the WQARF process at the time of this writing. This summary is followed by a description of the communications vehicles and techniques available for use. Multiple techniques to communicate with and educate the public may be used throughout the process of remediating the WQARF site.

A. Community Involvement Action Summary – Required Activities

The following Community Involvement Action Summary table describes the required community involvement actions for the Broadway-Pantano WQARF site and notes what actions have been completed to date.

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Community Involvement Action Summary					
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date	Complete	
				Groundwater Operable Unit	Landfill Operable Unit
Preliminary Investigation	Provide owners and operators a copy of the Draft WQARF Site Registry Report for a 15-day comment period prior to publishing a notice in a newspaper announcing the availability of the Draft WQARF Site Registry Report for a 30-day public comment period.	A.R.S. § 49-287.01(C) A.R.S. § 49-289.03(A)(1)	Mailing to owners and operators, April 20, 1998 Public notice/comment, <i>Arizona Daily Star</i> , May 12-15, 1998	✓	✓
WQARF Registry Listing	Following the listing of a site on the WQARF Registry, ADEQ will: <ul style="list-style-type: none">• Establish a preliminary community involvement area (see Chapter 2, Section A) within 90 days of site listing on the WQARF Registry.• Provide written notice to the community on hazardous substance contamination in the area, the actual and potential risks and routes of exposure, possible health effects, and the opportunity to join the site mailing list.• Identify ADEQ personnel to contact for further information.	A.R.S. § 49-289.02	Notice to the community and development of a community involvement area, October 1999	✓	✓
	Develop a CIP that establishes a CAB, designates a spokesperson, provides for newsletters with current information about the status of remedial actions at the site, establishes a public document repository location, and provides for schedules of CAB meetings and public meetings. Update the CIP at least every 2 years.	A.R.S. § 49-287.03(D) A.R.S. § 49-289.03(B) A.R.S. § 49-289.03(C) A.A.C. R18-16-404(C)(1)(i) A.A.C. R18-16-404(C)(1)(j) A.A.C. R18-16-404(C)(1)(k) A.A.C. R18-16-404(C)(1)(o)	Original CIP drafted 1998 CIP updated 2000, 2002, and 2014	✓	✓
Early Response Action	<p>A work plan shall be prepared for each Early Response Action that will include a description of work to be done, known site conditions, a plan for conducting the work; a description of community involvement activities for the Early Response Action under R18-16-404; and a schedule.</p> <p>Community involvement activities may include development of a community involvement plan under A.A.C. R18-16-404(C) or community involvement activities appropriate to the scope and schedule of the work performed such as a general public notice to those who may be impacted by field work as indicated in A.A.C. R18-16-404(D)(2).</p> <p>If immediate action is necessary to address a current risk to public health or the environment, to protect a source of water, or to provide a supply of water, the work plan and written rationale may be prepared and the community involvement activities may be conducted after commencement of the Early Response Action.</p>	A.A.C. R18-16-404 A.A.C. R18-16-405(D)(2) A.A.C. R18-16-405(E) A.A.C. R18-16-405(G)	In June 2000, the City of Tucson and Pima County installed a soil vapor extraction system at the Broadway North Landfill as part of an Early Response Action.	✓	✓

Community Involvement Action Summary					
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date	Complete	
				Groundwater Operable Unit	Landfill Operable Unit
Remedial Investigation ⁴	Provide notice to interested parties announcing the availability of the Remedial Investigation Scope of Work or Work Plan, Fact Sheet, and CIP Outline for review and a 30-day public comment period. Provide notice indicating that any person, by written agreement with the ADEQ may develop and implement a work plan for the Remedial Investigation and Feasibility Study and solicit information regarding the current and future land and water uses at the site. ⁵ These notices shall also provide an opportunity to request a public meeting.	A.R.S. § 49-287.03(B) A.R.S. § 49-287.03(C) A.A.C. R18-16-301(C) A.A.C. R18-16-403(F) A.A.C. R18-16-403(G) A.A.C. R18-16-404(C)(1)(a) A.A.C. R18-16-406(B) A.A.C. R18-16-406(D)	Combined notices: -Landfill Operable Unit, April/ May 1998 -Groundwater Operable Unit April/May 2007	✓	✓
	Establish a selection committee to choose CAB members for the site. The selection committee shall consist of the following number of people from each organization: <ul style="list-style-type: none">• ADEQ: 1• Potentially Responsible Party: 1• Local Official : 1• Local Community: 2	A.R.S. § 49-289.03(D)	Selection committee, November 1999	✓	✓
	Establish a CAB of between 5 to 20 members that represent a diversified cross section of the community. Within 90 days of appointment by the CAB selection committee, the CAB shall elect co-chairpersons and develop a charter defining operating procedures, membership terms and obligations, goals for developing issues, concerns and opportunities related to quick cleanup of the site, and any other anticipated activities for identifying and improving the public's access and understanding of information regarding the remediation process at the site.	A.R.S. § 49-289.03(C) A.R.S. § 49-289.03(F)	CAB established, November 18, 1999	✓	✓

⁴ A potentially responsible party search is conducted concurrently with the Remedial Investigation and Feasibility Study, but does not have mandated community involvement activities.

⁵ Data collected from land and water use studies will be incorporated into the Remedial Investigation and/or Remedial Objectives report per A.A.C. R18-16-406(D)-(I).

Community Involvement Action Summary					
WQARF Process	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date	Complete	
				Groundwater Operable Unit	Landfill Operable Unit
Remedial Investigation (continued)	Publish a combined ⁶ public notice announcing the availability of the Draft Remedial Investigation Report for review and a minimum 30-day public comment period, as well as hold a public meeting to solicit Remedial Objectives for the site. The public meeting shall be held not less than 45 calendar days and not more than 90 calendar days after release of the Draft Remedial Investigation report, unless ADEQ sets a different date for good cause.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(b) A.A.C. R18-16-406(F) A.A.C. R18-16-406(I)(1) A.A.C. R18-16-406(I)(2)	Draft Remedial Investigation Report public notice/comment: -Groundwater Operable Unit, April 4, 2007 -Landfill Operable Unit, November 29, 2013 Public meeting: -Groundwater Operable Unit, May 23, 2007 -Landfill Operable Unit, February 20, 2014	✓	✓
	Publish a public notice announcing the availability of the Proposed Remedial Objectives Report for a 30-day public comment period. Publish a public notice of the availability of the Final Remedial Investigation Report, which shall contain the results of site characterization and the final Remedial Objectives Report. The final Remedial Investigation report shall be accompanied by responsiveness summaries regarding comments, issues and concerns raised in the community involvement process and, if the report is prepared by a person other than ADEQ, copies of the comments received.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(c) A.A.C. R18-16-406(I)(5) A.A.C. R18-16-406(J)	Proposed Remedial Objectives Report public notice/comment: -Groundwater Operable Unit, November 25, 2008 -Landfill Operable Unit, March 5, 2014 Final Remedial Investigation Report public notice: -Groundwater Operable Unit, December 13, 2012 -Landfill Operable Unit, February 27, 2015	✓	✓
Feasibility Study	Provide notice to interested parties announcing the availability of the Feasibility Study Work Plan* <i>Although not mandated, ADEQ will also provide public notice upon completion of the Feasibility Study.</i>	A.A.C. R18-16-404(C)(1)(d) A.A.C. R18-16-407(B)	<i>*On April 9, 2007 a Feasibility Study Work Plan public notice was published for the Groundwater Operable Unit.</i> Feasibility Study public notice/comment, August 14, 2017	✓	
Proposed Remedial Action Plan	Publish a public notice announcing the availability of the Proposed Remedial Action Plan for a 30-day public comment period. Mail the same notice to interested parties. The notice will describe the proposed remedy and its estimated cost and identify where the Proposed Remedial Action Plan, Remedial Investigation, and Feasibility Study Reports may be inspected.	A.R.S. § 49-287.04(B) A.R.S. § 49-289.03(A)(2) A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(e) A.A.C. R18-16-408(A)			

⁶If not combined, separate public notices will be provided for the Draft Remedial Investigation/comment period and the Remedial Objectives solicitation and public meeting.

Community Involvement Action Summary					
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date	Complete	
				Groundwater Operable Unit	Landfill Operable Unit
Record of Decision	Publish a public notice announcing the availability of the Record of Decision and Responsiveness Summary for review.	A.R.S. § 49-287.04(G) A.A.C. R18-16-404(C)(1)(f) A.A.C. R18-16-410			
Implementation of Remedy (Remedial Actions)	Publish a public notice announcing a request for ADEQ to approve remedial actions at the site. The notice will provide the opportunity for a 30-day public comment period.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(h) A.A.C. R18-16-413			
	Provide notice to the public and interested parties of a request for ADEQ to waive a regulatory requirement (permit) to complete remedial actions.	A.R.S. § 49-290 A.A.C. R18-16-404(C)(1)(l)			
	Provide notice to the public that fieldwork conducted to remove contaminants of concern may result in noise, light, odor, dust or other adverse impacts.	A.A.C. R18-16-404(C)(1)(m)	ADEQ has/will continue to provide notice to residents regarding field work and well installation.	✓	✓
	Provide notice to the public of a request for ADEQ to determine whether each of the Remedial Objectives for a site have been satisfied and will continue to be satisfied. The notice will provide the opportunity for a 30-day public comment period on the request.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(n) A.A.C. R18-16-416(B)			
Operation & Maintenance	Publish a public notice announcing the availability of the Operation & Maintenance Plan for review, where the remedy or ERA involves treatment of water to remove contaminants of concern at the site and a 30-day public comment period. Mail the same notice to interested parties.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(g) A.A.C. R18-16-411(E)			
Removal from Registry	<i>Although not mandated by Arizona statute or administrative code, ADEQ may publish a public notice upon the removal of the site from the WQARF Registry.</i>	Not applicable			
Any Phase	Publish a public notice announcing a request to ADEQ for a prospective purchaser agreement. The notice will provide the opportunity for a 30-day public comment period.	A.R.S. § 49-289.03(A)(3) A.A.C. R18-16-301(C)	Eleven prospective purchaser agreement notices were published from August 1999 through June 2009 (see Appendix E).	✓	✓
	Publish a public notice announcing the intention of ADEQ to enter into a settlement agreement with a responsible party. The notice will provide the opportunity for a 30-day public comment period.	A.R.S. § 49-289.03(A)(4) A.A.C. R18-16-301(C)	Twenty-one consent decree settlement notices were published from January 2000 through December 2010 (see Appendix F)	✓	✓

B. Community Involvement Action Summary – Communication Techniques

As previously described in the Community Involvement Action Summary table, there are required communications activities for every phase of the WQARF. This section describes the specific activities and resources that ADEQ uses and has available to communicate with, educate, and help the community and stakeholders become actively involved in the Broadway-Pantano WQARF site.

ADEQ will continue to use the following resources to keep stakeholders informed throughout the process:

1. **CAB** – The CAB has been conducting public meetings about the site with ADEQ’s assistance since November 1999. CAB members advise ADEQ on appropriate means of delivering site information and provide input regarding content. CAB members also serve as an information resource for their community. CAB meetings are held at a location and date mutually agreed upon by the CAB members and an ADEQ representative. Care is taken to ensure that the location is easily accessible by the public. For a list of current CAB members, see Appendix D.
2. **Local Print Media** – ADEQ will publish all WQARF milestone public notices in the *Arizona Daily Star*, which has a search function for public notices. For a list of other media outlets, see Appendix G.
3. **U.S. Mail and Email Lists** – ADEQ maintains U.S. Mail and email address lists for the Broadway-Pantano WQARF site. Mailing list addresses are compiled and updated on an ongoing basis through CIP updates, as are return mailers from fact sheets, CABs, open houses, public meeting attendance lists, and other individual requests. These distribution lists include CAB members, local elected and appointed officials, neighborhood and homeowner association contacts, and schools and vulnerable population centers representing/located within the site community involvement area (see Appendices B through D), as well as other interested parties.
4. **ADEQ Website** – ADEQ’s website provides visitors with three areas of information related to the site and is updated on an ongoing basis:
 - Notices Page – The notices page provides information regarding WQARF site public notices and comment periods (<http://azdeq.gov/notices>). This information can also be found on the WQARF site information page.
 - Events Page – The events page provides information regarding WQARF site public meetings, including CAB meetings (<http://www.azdeq.gov/events>). This information can also be found on the WQARF site information page.

- **WQARF Site Information Page** – The WQARF site information page provides detailed site information and access to the online information repository for the WQARF site, which will include milestone documents (<http://www.azdeq.gov/node/993>).

5. ADEQ Notice Board – Notice boards are located in ADEQ’s Phoenix and Tucson offices.

6. Public Meetings – Public meetings or open houses, beyond the CAB meetings, may be scheduled and conducted as needed and as determined by ADEQ and the CAB (for example, meetings with neighborhood/homeowner’s associations, schools or other community groups).

7. Site Tours – Tours of the site may be requested and arranged in conjunction with the property owners and in compliance with current laws and regulations by contacting the ADEQ Community Involvement Coordinator.

The following table of Communication Techniques illustrates how these techniques have, and will be used throughout the WQARF process for the Broadway - Pantano WQARF site.

Communication Techniques							
Communications Deliverables			Communications Recipients/Methods				
Type ⁷	Why	When	CAB Members	Interested Parties List	ADEQ Website	Local Print Media	ADEQ Notice Board
Notice	Provide notice of availability of milestone documents, request comments, and solicit input.	Per mandate (see Community Involvement Action Summary table).	✓	✓	✓ (Site and calendar pages)	✓ (<i>The Arizona Daily Star</i>)	✓
CAB Meeting Notice/Agenda	Provide two-way communication about the status of site activities. The notice announces the meeting and provides the agenda.	Variable schedule based on level of site activity as scheduled by CAB and ADEQ, with the exception of the required public meeting for the solicitation of remedial objectives (see Community Involvement Action Summary table).	✓	✓	✓ (Site and calendar pages)	Not applicable	✓
Technical Presentation	Provide current information about site activity or related topics.	At CAB meetings or at specially requested public meetings.	✓	Not applicable	✓ (Site page)	Not applicable	Not applicable
Technical Milestone Document	Provide current technical information about site investigation/remediation activities (e.g., Remedial Investigation, Feasibility Study, etc.).	According to the WQARF Process as documents are developed and become available.	✓	Not applicable	✓ (Online information repository)	Not applicable	Not applicable
Site Fact Sheet/Newsletter	Provide current information about site activity.	Published at the start of the Remedial Investigation and at specific milestones or other times as deemed appropriate by ADEQ and the CAB.	✓	✓	✓ (Online information repository)	Not applicable	Not applicable
Public Meeting	Provide forum to solicit Remedial Objectives. (Note that this meeting may be conducted in conjunction with a CAB meeting.) Additional public meetings may be used to discuss site activities as determined by level of community interest.	As required/if requested.	✓	✓	✓ (Site and calendar pages)	✓ (<i>The Daily Territorial</i>)	✓
Site Tour	Provide walking or driving tour of the site to observe current site conditions and the surrounding community and environment.	If requested, and with cooperation of current property owners.	Contact ADEQ Community Involvement Coordinator.				

⁷ Communications deliverables may be translated into Spanish if deemed necessary or requested.

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C. Other Resources and Contacts

In addition to the designated spokesperson and information repository identified at the beginning of this CIP, the appendices included in this CIP provide additional resources and contact information for the public to use as desired.

- **Appendix A** provides a history of major activities by year at the Broadway-Pantano WQARF site.
- **Appendix B** provides a list of targeted communities in the Broadway-Pantano WQARF site community involvement area. These include neighborhood associations registered with the City of Tucson Neighborhood Association, as well as community schools and vulnerable population centers that fall within the community involvement area.
- **Appendix C** provides a table of local and state elected officials, by ward or district, who represent communities within the community involvement area. Note that some wards or districts may encompass more of the community involvement area than others.
- **Appendix D** provides a table of current Broadway-Pantano WQARF site CAB members.
- **Appendix E** provides a list of parties that have requested, and received, from ADEQ prospective purchaser agreements for property in and around the Broadway-Pantano WQARF site.
- **Appendix F** provides a list of parties that have consent decree settlements with ADEQ pertaining to the Broadway-Pantano WQARF site.
- **Appendix G** provides a list of media outlets in the area. All future public notices for the Broadway-Pantano WQARF site can be found by searching *The Daily Territorial* publication (<http://dailyterritorial.com>).
- **Appendix H** provides a list of other related state and local agencies that may be of interest to the public.

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Appendix A – Site History

The following presents a site history in chronological order for the Arizona Department of Environmental Quality (ADEQ) Broadway Pantano Water Quality Assurance Revolving Fund (WQARF) site.

1953 – 1962 Broadway South Landfill in operation. From 1953 to 1956, the landfill was operated by Pima County, and, from 1956 to 1958, the landfill was operated by Sanitary District #1 of Pima County. In 1958, Pima County and the Sanitary District No. 1 of Pima County agreed to share interest in the landfill until it closed in 1962.

1959 – 1973 Broadway North Landfill in operation. In 1959, formal landfilling operations began on a portion of the Broadway North Landfill under the Sanitary District No. 1 of Pima County and lasted until 1968, when the district was dissolved. Pima County Department of Sanitation took over operation of this portion of the landfill, which was closed and capped by approximately 1973. The City of Tucson also operated on a portion of the Broadway North Landfill from approximately 1965 to 1971.

1987 The City of Tucson shut down a municipal water supply well located at the western edge of the Broadway North Landfill because it was found to contain tetrachloroethene (PCE) at a level exceeding the recommended federal drinking water standard.

1989 – 1991 The City of Tucson shut down two other water supply wells located downgradient of the Broadway North Landfill and Broadway South Landfill because of PCE contamination detected in the wells.

1990 – 1991 The City of Tucson installed groundwater monitor wells to delineate the extent of groundwater contamination.

1993 The City of Tucson, Pima County, and property owners formed a project management team to conduct a Remedial Investigation/Feasibility Study of the site, with oversight provided by ADEQ.



Installation of monitor well

- 1995 ADEQ conducted a Preliminary Assessment/Site Inspection at the WQARF site, and at both the Broadway South Landfill and Broadway North Landfill. The study confirmed the presence of volatile organic compounds in groundwater downgradient (west) of the Broadway North Landfill and in soil gas at the site. Based on the detection of volatile organic compounds in soil gas from the center of the Broadway South Landfill and the detection of PCE in some City of Tucson wells, ADEQ concluded that a release of PCE occurred at the site.
- 1998 The Broadway Pantano site was placed on the WQARF Registry with an eligibility and evaluation score of 48 out of a possible total of 120.
- In March, the City of Tucson and Pima County issued a Remedial Investigation report for the Landfill Operable Unit, which consisted of the Broadway North Landfill and the unsaturated zone beneath it, which confirmed that the Broadway North Landfill is a major source of the groundwater contamination at the site. However, the report did not have a complete assessment of the shallow soil gas and thus, additional investigation was needed. ADEQ installed three groundwater monitor wells. Contamination was found to extend approximately 2 miles to the west from the Broadway North Landfill.
- 1999 The site was re-evaluated and the site score was increased to 57.
- The City of Tucson installed four additional groundwater monitor wells to aid in determining the lateral and vertical delineation of the contaminant plume.
- 2000 In June, the City of Tucson and Pima County implemented an Early Response Action by installing a soil vapor extraction system (SVE) at the Broadway North Landfill to prevent, to the extent practicable, further release of landfill contaminants to the groundwater. Also in 2000, the City of Tucson installed the first groundwater monitor well at the Broadway South Landfill and the groundwater samples collected from this well found to contain PCE above the Arizona Aquifer Water Quality Standard. In December, Home Depot completed a report investigating an area located south of the Broadway North Landfill. The report noted that dross (metal waste) was buried in that area. Home Depot covered the dross site with soil and fenced off the area.
- 2001 In June, ADEQ and the City of Tucson executed a work-share agreement under which the City of Tucson would manage the construction of the Western Containment System with ADEQ oversight and funding. At this point, ADEQ took over the investigation and remediation of the site, including the operation of the SVE system. ADEQ also installed four groundwater monitor wells to determine if another Early Response Action was needed for two City of Tucson water supply wells south of the Broadway North Landfill contaminant plume.

- 2002 In June, the City of Tucson issued a Groundwater Operable Unit Remedial Investigation report documenting groundwater investigations through 2000; however, additional investigation was needed to complete the Remedial Investigation. In September, the SVE system was turned off to conduct rebound testing. Results indicated that the SVE system could be turned off. At the time it had removed more than 1,200 pounds of PCE. Soil gas testing from December 2002 to March 2013 continued to show extremely low levels of PCE, indicating that the SVE system could remain off.
- In November, ADEQ completed an investigation to determine whether the Broadway South Landfill was contributing to groundwater contamination at the site. The investigation showed that the Broadway South Landfill was not contributing to the site plume at the time, but ADEQ continued to monitor the groundwater. ADEQ also installed eight groundwater monitor wells to be used for performance monitoring of the Western Containment System.
- 2003 In March, ADEQ and the City of Tucson began operating the Western Containment System at the western edge of the Broadway Pantano WQARF site groundwater contaminant plume. The system was designed to prevent, to the extent practicable, further migration of the groundwater contaminant plume within the City of Tucson's Central well field.
- 2004 In November, groundwater monitoring results indicated that the Broadway South Landfill plume might be comingling with the Broadway North Landfill plume.
- 2005 Groundwater sampling events confirm that the Broadway South Landfill plume had merged with the Broadway North Landfill plume. Therefore, the Broadway South Landfill became part of the Broadway Pantano WQARF site and ADEQ expanded its Remedial Investigation to include characterization of the Broadway South Landfill.
- 2006 In the spring, two groundwater monitor wells were installed in the northeast part of the Broadway South Landfill to further delineate the groundwater contamination. It appeared that the only groundwater contaminant of concern was PCE and the only exceedances of the Arizona Aquifer Water Quality Standard for PCE were in the northern part of the Broadway South Landfill. That summer, ADEQ decided to separate the groundwater part of the Remedial Investigation from the landfill part of the Remedial Investigation to expedite the groundwater cleanup at the site. The landfill and groundwater components became separate operable units of the Broadway Pantano WQARF site.

- 2007 From November to December, ADEQ completed installation of three groundwater monitor wells 0.25 mile downgradient from the Broadway North Landfill. Each well was screened at a different depth below the water table to help delineated the vertical extent of contamination and to allow for other groundwater testing needed for the groundwater Feasibility Study. The Draft Groundwater Operable Unit Remedial Investigation Report was issued for public comment, and the Groundwater Operable Unit Remedial Objectives public input meeting was held in 2007.
- 2008 In March, ADEQ initiated a groundwater modeling study in preparation for the future groundwater Feasibility Study. In November, the Proposed Groundwater Operable Unit Remedial Objectives Report was issued for public comment.
- 2009 In January, the City of Tucson completed the installation of three groundwater monitor wells west/northwest of the Western Containment System wells to delineate the downgradient edge of the PCE plume, and began quarterly sampling of key groundwater monitor wells near and downgradient of the Western Containment System. ADEQ executed prospective purchaser agreements for nine Broadway North Landfill parcels. As a public benefit under the prospective purchaser agreements, the property owner has agreed to prepare and record a declaration of environmental use restriction and associated engineering control plan for the maintenance of the landfill cover and methane gas mitigation system for each parcel.
- 2010 In June, ADEQ completed the groundwater modeling study. The results of this study will be used in the future groundwater Feasibility Study. In July, ADEQ finalized the human health risk assessment for the potential shallow soil gas pathway from the Broadway North Landfill to adjacent residences. The human health risk assessment determined that the potential risk was below the level requiring remediation. The City of Tucson continued quarterly sampling of select wells and found that a small portion of the groundwater plume extends to Craycroft Road.
- 2011 In the fall, ADEQ began updating and revising the Draft Groundwater Operable Unit Remedial Investigation Report to include site data and information produced since the draft report was issued in 2007.
- 2012 In June, ADEQ finalized the Groundwater Operable Unit Remedial Investigation Report. The final report includes, as appendices, the Water Use Study, the Final Groundwater Operable Unit Remedial Objectives Report, and ADEQ's responses to public comments. The report was made available to the public in December. In October, the Western Containment System was discontinued because incoming PCE concentrations were consistently lower than the Arizona Aquifer Water Quality Standard. From March 2003 to October 2012, the system treated 3.2 billion gallons of water and removed 55.4 pounds of PCE from groundwater.

Maintenance of the Western Containment System continues so that it can readily be brought back on line if site conditions change.

- 2013 In the spring, ADEQ completed the Landfill Operable Unit Remedial Investigation fieldwork. A Draft Landfill Operable Unit Remedial Investigation Report was issued for public comment in November.
- 2014 In March, ADEQ completed and issued for public comment the Landfill Operable Unit Proposed Remedial Objectives Report.
- 2017 In June, the Feasibility Study was finalized, and in August a public notice was made available to the public for comments.

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Appendix B – Targeted Communities

A. Neighborhood Associations

The following presents the registered neighborhood associations and their respective points of contact in the Broadway-Pantano Water Quality Assurance Revolving Fund Registry (WQARF) site community involvement area:¹

AVONDALE NEIGHBORHOOD ASSOCIATION (520) 222-3944
Scott Ingersoll etac_romad@msn.com

BROADWAY NORTHEAST NEIGHBORHOOD ASSOCIATION (520) 886-7622
Gerry T. Snell Email address not provided

DUFFY NEIGHBORHOOD ASSOCIATION (520) 225-5418
Andrew N. Agnew duffyneighborhood@yahoo.com

EL GHECKO NEIGHBORHOOD ASSOCIATION Phone number not provided
Thomas A. Wills tom.wills@cox.net

HAROLD BELL WRIGHT ESTATES NEIGHBORHOOD ASSOCIATION Phone number not provided
John Utz porourke6@cox.net

MITMAN NEIGHBORHOOD ASSOCIATION (520) 319-9868
Sandy Paris thevanburen@mebapartments.com

THUNDERBIRD HEIGHTS/WILMOT DESERT ESTATES NEIGHBORHOOD ASSOCIATION (520) 403-2183
Jennifer Basler sjbasler@cox.net

B. Community Schools

The Broadway Pantano WQARF site community involvement area includes the Tucson Unified School District. The following list presents the community schools in the Broadway Pantano WQARF community involvement area:

HUDLOW ELEMENTARY SCHOOL
502 North Caribe Avenue, Tucson, AZ 85710 (520) 731-4800

¹ The City of Tucson Neighborhood Associations website does not provide address information for each respective neighborhood association president.

ST MICHAEL'S PARISH DAY SCHOOL

602 North Wilmot Road, Tucson, AZ 85711

(520) 722-8478

TUCSON UNIFIED SCHOOL DISTRICT MAIN OFFICE

1010 East Tenth Street, Tucson, AZ 85719

(520) 225-6000

C. Vulnerable Population Centers

The following presents a list of vulnerable population centers, including places such as child care and assisted living facilities, in the Broadway Pantano WQARF site community involvement area:

THE BRADFORD HOME

710 North Mann Avenue, Tucson, AZ 85710

(520) 822-8416

BROADWAY PROPER RETIREMENT COMMUNITY

400 South Broadway Place, Tucson, AZ 85710

(520) 296-3238

CASITA JOSE DAY CARE

6575 East Carondelet Drive, Tucson, AZ 85710

(520) 873-3987

CATALINA VILLAGE

5324 East 1st Street, Tucson, AZ 85711

(520) 329-4437

DAE'S GOLDEN DAYS, INC.

6922 East Edgemont Street, Tucson, AZ 85710

(520) 885-6946

EASTER SEALS BLAKE FOUNDATION - KACHINA HOUSE

5626 East 2nd Street, Tucson, AZ 85711

(520) 327-1529

LOVE CARE CO.

7022 East Edgemont Street, Tucson, AZ 85710

(520) 296-6522

ST. JOSEPH'S HOSPITAL

350 N. Wilmot Road, Tucson, AZ

(520) 873-3000

**TUCSON UNIFIED SCHOOL DISTRICT #1 – TUCSON HUDLOW
EXTENDED DAY CARE**

502 North Caribe Avenue, Tucson, AZ 85710

(520) 733-8940

TUCSON UNIFIED SCHOOL DISTRICT #1 – HUDLOW TITLE I PACE

502 North Caribe Avenue, Tucson, AZ 85710

(520) 731-4800

VILLA CAMPANA REHABILITATION HOSPITAL LLC

6651 East Carondelet Drive, Tucson, AZ 85710

(520) 296-6100

Appendix C – Local and State Elected Officials

As of the publication of this community involvement plan, the 2018 community involvement area for the Broadway-Pantano Water Quality Assurance Revolving Fund Registry site falls under Tucson Wards 2 and 6; Pima County Supervisorial Districts 2, 4, and 5; and Arizona Legislature Districts 9 and 10.

CITY Officials	COUNTY Supervisors	STATE Senators	STATE Representatives
City Hall 255 W. Alameda St. 10 th Floor Tucson, AZ 85701 (520) 791-4213	Pima County 130 W. Congress St. 11 th Floor Tucson, AZ 85701 (520) 724-9999	Arizona State Senate Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-3559	Arizona House of Representatives Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-4221
Mayor City of Tucson Jonathan Rothschild (520) 791-4201 mayor1@tucsonaz.gov	County Supervisor District 2 Ramón Valadez (520) 724-8126 district2@pima.gov	Senator District 9 Steve Farley Room # 213 (602) 926-3022 sfarley@azleg.gov	Representative District 9 Randall Friese Room # 321 (602) 926-3235 rfriese@azleg.gov
Interim City Manager City of Tucson Michael Ortega (520) 791-4204 citymanager@tucsonaz.gov	County Supervisor District 4 Steve Christy (520) 724-8094 district4@pima.gov	Senator District 10 David Bradley Room # 315 (602) 926-5262 dbradley@azleg.gov	Representative District 9 Pamela Powers Hannley Room # 324 (602) 926-4848 ppowershannley@azleg.gov
Tucson City Councilman Ward 2 Paul Cunningham (520) 791-4687 ward2@tucsonaz.gov	County Supervisor District 5 Richard Elías (520) 724-8126 district5@pima.gov		Representative District 10 Todd A. Clodfelter Room # 121 (602) 926-4850 tclodfelter@azleg.gov
Tucson City Councilman Ward 6 Steve Kozachik (520) 791-4601 ward6@tucsonaz.gov			Representative District 10 Kristen Engel Room # 118 (602) 926-5178 kengel@azleg.gov

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Appendix D – Community Advisory Board Members

The following table presents a list of the Broadway-Pantano Water Quality Assurance Revolving Fund (WQARF) Registry site Community Advisory Board (CAB) members as of June 2018.

Broadway Pantano WQARF Site CAB Co-Chairs		
Bill Petrouson (520) 440-4469 bpetrouson@comcast.net	Janet Marcus (520) 327-1339 jmarcus21@cox.net	
CAB Members		
Cheri Bludau (520) 886-1826 mon_cheri_oollala@msn.com	Mark Brusseau (520) 621-3244 brusseau@email.arizona.edu	Aubrey McMullen (520) 885-0083 almcmullen@ieee.com
Wanda Ryckman (520) 722-4274 umc142@juno.com	Jackie Olson (520) 591-4133 jolson03@msn.com	

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Appendix E – Prospective Purchaser Agreements

The following table presents a list of parties that have requested, and received, prospective purchaser agreements from the Arizona Department of Environmental Quality for properties in or around the Broadway-Pantano Water Quality Assurance Revolving Fund (WQARF) Registry site as of August 2014. The table includes purchaser name, parcel number, the date that public notices for these agreements were issued, and the dates these agreements became effective.

Purchaser Name	Parcel(s) Number	Public Notice Date	Effective Date
Home Depot USA, Inc.	133-23-110C	3/23/2002	7/3/2002
Home Depot USA, Inc.	133-23-110C 133-23-156 133-23-157	8/30/1999	12/8/1999
HSL Gateway Center Block 10, LLC	133-23-1570	6/19/2009	7/16/2009
HSL Gateway Center Block 5B, LLC	133-23-1510	6/19/2009	7/16/2009
HSL Gateway Center Block 6A, LLC	133-23-1520	6/19/2009	7/16/2009
HSL Gateway Center Block 6B, LLC	133-23-1530	6/19/2009	7/16/2009
HSL Gateway Center Block 7, LLC	133-23-1540	6/19/2009	7/16/2009
HSL Gateway Center Block 8, LLC	133-23-1550	6/19/2009	7/16/2009
HSL Gateway Center Block 9, LLC	133-23-1560	6/19/2009	7/16/2009
HSL Gateway Center Common Area, LLC	133-23-1580 133-23-1590	6/19/2009	7/16/2009
SI Hotel Properties, LLC	133-23-1500	12/17/2008	2/24/2009

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Appendix F – Settlements

The following table presents a list of parties that have entered into consent decree settlements with the Arizona Department of Environmental Quality for properties in or around the Broadway-Pantano Water Quality Assurance Revolving Fund (WQARF) Registry site as of August 2014. The table includes party name, the date the consent decree was signed by the judge, and the date that public notices for these settlements were issued.

Party Name	Date Consent Decree Signed by Judge	Public Notice Date
ABB, Inc., Combustion Engineering, Inc., and Textron, Inc.	2/22/2012	11/18/2010
Balder Electric Company	2/22/2012	11/23/2010
Don Mackey Oldsmobile-Cadillac, Inc.	2/22/2012	11/20/2010
Dunn - Edwards Corporation	2/22/2012	11/22/2010
Durodyne, Inc.	2/22/2010	11/23/2010
Fersha Corporation	2/22/2010	11/20/2010
Fluor Enterprises, Inc.	2/22/2010	11/24/2010
General Dynamics Corporation	2/22/2010	12/2/2010
Holmes Tuttle Ford, Inc.	2/22/2012	12/2/2010
Pima County	9/3/2002	10/30/2000
Pima County Community College District	2/22/2012	11/20/2010
R.E. Darling Co., Inc.	2/3/2011	11/29/2010
Rollings Corporation	2/22/2012	11/21/2010
Rowe Enterprises, Inc.	2/22/2012	11/24/2010
Sterling Real Estate Investment, L.L.C.	3/7/2000	1/25/2000
Texas Instruments Incorporated	2/22/2012	11/19/2010
The Ashton Company, Inc.	2/22/2012	11/22/2010
The Goodyear Tire & Rubber Company and Lockheed Martin Corporation	2/22/2012	11/16-17/10
Tucson Dodge, Inc.	2/22/2012	11/24/2010
Tucson Foundry & Manufacturing, Inc., and Industrial Pipe Fittings, LLC	2/22/2012	11/19/2010
Warner Propeller and Governor Co., L.L.C.	2/22/2012	11/23/2010

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Appendix G – Media Outlets

The following list presents Tucson media outlets that may be used by the public and Community Advisory Board members to promote information on the Broadway-Pantano Water Quality Assurance Revolving Fund Registry site. The *Daily Territorial* is the external media outlet that the Arizona Department of Environmental Quality will use to publish all public notices related to the site.

NEWSPAPERS AND MAGAZINES

ARIZONA DAILY STAR (520) 573-4400
4850 South Park Avenue, Tucson, AZ 85714

ARIZONA DAILY WILDCAT (520) 621-7579
615 North Park Avenue, Room 101, Tucson, AZ 85721

BIZ TUCSON (520) 299-1005
4729 East Sunrise Drive, Suite 505, Tucson, AZ 85718

THE DAILY TERRITORIAL (520) 294-1200
3280 East Hemisphere Loop, Suite 180, Tucson, AZ 85706

DESERT TIMES (520) 797-4384
7225 North Mona Lisa Road, Suite 125, Tucson AZ 85741

THE EXPLORER NEWSPAPER (520) 797-4384
7225 North Mona Lisa Road, Suite 125, Tucson AZ 85741

INSIDE TUCSON BUSINESS (520) 797-4384
7225 North Mona Lisa Road, Suite 125, Tucson AZ 85741

TUCSON CITIZEN² No phone number

TUCSON WEEKLY (520) 294-1200
3280 East Hemisphere Loop, Suite 180, Tucson, AZ 85706

RADIO

ARIZONA NEWS RADIO NETWORK (480) 483-8415
(KJLL – Tucson News Network)
14605 North Airport Drive, Suite 370, Scottsdale, AZ 85260

ARIZONA PUBLIC MEDIA (520) 621-5805
(KUAT, KUAZ [National Public Radio])
P.O. Box 210067, Tucson, AZ 85721

² The *Tucson Citizen* ended its print edition in 2009, then became an online compendium for blogs until February 2014. The *Tucson Citizen* website (www.tucsoncitizen.com) remains an archive as a community resource.

RADIO (continued)

CLEAR CHANNEL COMMUNICATIONS (520) 618-2100
(KMIY, KRQQ, KYWD, KOHT, KNST, KTZR, KXEW)
1200 North Wilmot Road, Tucson, AZ 85712

CUMULUS MEDIA (520) 887-1000
(KCUB, KHYT, KIIM, KSZR, KTUC)
575 West Roger Road, Tucson, AZ 85705

FOUNDATIONS FOR CREATIVE BROADCASTING (520) 623-1000
(KXCI)
220 South 4th Avenue, Tucson, AZ 85701

GOOD NEWS RADIO BROADCASTING (520) 790-2440
(KCEE, KVOI, KGMS, KLTU, KNXN)
3222 South Richey Avenue, Tucson, AZ 85713

JOURNAL BROADCAST GROUP (520) 722-5486
(KFNN KQTH, KTGTV, KMXZ)
7280 East Rosewood Street, Tucson, AZ 8571

LOTUS COMMUNICATIONS (520) 407-4500
(KTKT, KLPX, KFMA, KCMT)
3871 North Commerce Drive, Tucson, AZ 8570

TELEVISION MEDIA

KFTU-CA Channel 25/46 (Univision) (520) 204-1270
2301 North Forbes Boulevard, Suite 103, Tucson, AZ 85745

KGUN Channel 9 (ABC) (520) 722-5486
7280 East Rosewood Street, Tucson, AZ 85710

KHRR Channel 40 (Telemundo) (520) 396-2617
5151 East Broadway Boulevard, Tucson, AZ 85711

KMSB Channel 11 (FOX) (520) 744-1313
7831 North Business Park Drive, Tucson, AZ 85743

KOLD Channel 13 (CBS) (520) 744-1313
7831 North Business Park Drive, Tucson, AZ 85743

KUAS Channel 6/27 (PBS) (520) 621-5805
P.O. Box 210067, Tucson, AZ 85721

KVOA Channel 4 (NBC) (520) 792-2270
P.O. Box 5188, Tucson, AZ 85703

Appendix H – Related Agencies and Contact Information

The following list presents additional resources that may be used by the public and Community Advisory Board members to address concerns or questions related to the Broadway-Pantano Water Quality Assurance Revolving Fund Registry site.

State of Arizona

Arizona Department of Agriculture

1688 West Adams Street
Phoenix, AZ 85007
Phone: (602) 542-4373

Arizona Department of Health Services

150 North 18th Avenue
Phoenix, AZ 85007
Phone: (602) 542-1025

Arizona Department of Water Resources Groundwater Permitting and Wells Section

3550 North Central Avenue
Phoenix, AZ 85012
Phone: (602) 771-8527

City of Tucson

Housing and Community Development Department

Santa Rita Building
310 North Commerce Park Loop
Tucson, AZ 85745
Phone: (520) 791-4171

Recycling Program/Solid Waste

Price Service Park
4004 South Park Avenue, Building 1
Tucson, AZ 85714
Phone: (520) 791-3171

Tucson Water Department

3100 West Alameda Street
Tucson, AZ 85701
Phone: (520) 791-4331

Other

Agency for Toxic Substances and Disease Registry

Western Branch – Region 9

75 Hawthorne Street, Suite 100, M/S:HHS-1

San Francisco, CA 94105

Phone: (800) 232-4636

Consumer Information Line: (800) 223-0618

Real Estate Seller Disclosures

Arizona Department of Real Estate

2910 North 44th Street, Suite 110

Phoenix, AZ 85018

Phone: (602) 771-7799

<http://www.aaronline.com/wp-content/uploads/2013/01/seller-property-disclosure-statement.pdf>

Acronyms and Glossary of Terms

Aquifer: An underground rock formation composed of such materials as sand, soil, or gravel that can store groundwater and supply it to wells and springs. In aquifers, groundwater occurs in sufficient quantities to be used for drinking water, irrigation, and other purposes.

Aquifer Water Quality Standard (AWQS): State of Arizona maximum levels for contaminants that apply to groundwater in aquifers designated for drinking water use. For example, the AWQS for tetrachloroethene (PCE) is 5 micrograms per liter.

Arizona Administrative Code (A.A.C.): The A.A.C. is where the official rules of the State of Arizona are published. The *Code* is the official compilation of rules that govern state agencies, boards, and commissions.

Arizona Department of Environmental Quality (ADEQ): ADEQ is the executive agency of the Arizona State Government mandated to enforce and administer the state's environmental laws and regulations.

Arizona Revised Statutes (A.R.S.): State laws adopted by the Arizona State Legislature.

Broadway North Landfill: The Broadway North Landfill is the major source of contamination at the Broadway Pantano Water Quality Assurance Revolving Fund (WQARF) Registry site (site). The landfill was originally developed as a sand and gravel mining operation in the mid-1940s and was operated as a municipal landfill from approximately 1959 to 1973.

Broadway South Landfill: The Broadway South Landfill also operated as a sand and gravel quarry in the 1940s. From 1953 to 1962, the Sanitary District No. 1 of Pima County and Pima County operated the Broadway South Landfill as a municipal landfill.

Cleanup: Actions taken that deal with a release or threat of a release of hazardous substances that could adversely affect public health or the environment. The word “cleanup” is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action.

Community Advisory Board (CAB): A diverse group of community members interested in or affected by the presence of a WQARF site. By statute, ADEQ is required to form a CAB for each WQARF site where ADEQ is initiating a Remedial Investigation (RI). ADEQ seeks the CAB's input in the decision-making process and works with them from the onset of the RI and Feasibility Study (FS) process until the requirements of the Record of Decision (ROD) have been fulfilled.

Community Involvement Area: The mailing area of residences and businesses used in the notification for public meetings and other written notices regarding a site.

Community Involvement Coordinator: The ADEQ employee responsible for ensuring that all statutes and rules related to the involvement of the public and public outreach at WQARF sites are upheld and complied with by ADEQ. Community involvement coordinators manage and coordinate the work of CABs for WQARF sites.

Community Involvement Plan (CIP): A document that identifies techniques used by ADEQ and the U.S. Environmental Protection Agency (EPA) to communicate effectively with the public during the Superfund cleanup process at a specific site. This plan describes the site history, nature and history of community involvement, and concerns expressed during community interviews. In addition, the plan outlines methodologies and timing for continued interaction between the agencies and the public at the site.

Contamination: Any hazardous or regulated substance released into the environment.

Contaminant: Any physical, chemical, biological or radiological substance or matter present in any media at concentrations that may result in adverse effects to air, water or soil. A harmful or hazardous matter introduced into the environment that is not normally found there, or not naturally occurring

Early Response Action (ERA): Refers to a remedial action performed prior to the final remedy, and often prior to the Remedial Investigation. An ERA addresses current risks to public health, welfare, and the environment; protects or provides a supply of water; addresses sources of contamination; or controls or contains contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site.

Feasibility Study (FS): A process to identify a reference remedy and alternative remedies that appear to be capable of achieving the Remedial Objectives for the site. It is often done as part of a two-phase investigation in conjunction with a Remedial Investigation (RI), known as an RI/FS.

Groundwater: Water located beneath the ground surface in soil pore spaces and in the fractures of geologic formations. A formation of rock or soil is called an aquifer when it can yield a usable quantity of water.

Hazardous Substance: Any material that, because of its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

Information Repository: A collection of documents about a specific site. Information on certain WQARF and Superfund sites may be available at ADEQ offices and libraries throughout the state.

Monitoring Wells (Monitor Wells): Wells installed for the purpose of collecting samples such as groundwater and soil gas. Analytical results from samples are used to characterize the extent of contamination, the direction of groundwater flow, and the types and quantities of contaminants present in the groundwater.

Operable Unit (OU): Regulatory term for each of a number of separate activities undertaken as part of a Superfund/WQARF site cleanup. Dividing a site into two or more OUs allows separate investigations and cleanups to proceed at their own pace. Common examples are investigating soil and groundwater contamination separately, and cleaning up and redeveloping small portions of a larger site.

Operation & Maintenance (O&M): O&M includes the following: 1. Activities conducted after a WQARF/Superfund site action is completed to ensure that the action is effective; 2. Actions taken after construction to ensure that facilities constructed to treat wastewater will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner; and 3. On-going asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.

Plume: A well-defined area of contamination in groundwater, soil or the air, often used to describe the dispersion of contamination in soil and groundwater.

Potentially Responsible Party (PRP): Those parties (individuals or corporations) identified by state or federal authorities as potentially liable for cleanup costs at a contaminated site.

Preliminary Investigation (PI): The process of collecting and reviewing available information about a known or suspected hazardous waste site or release.

Proposed Remedial Action Plan (PRAP): A document that reviews the cleanup alternatives presented in the site FS and identifies ADEQ's preferred alternative. Selection of a preferred alternative is not a closed-end commitment to use that alternative; rather, it is a way for the agency to indicate, based on experience and expertise, which alternative is the most likely course of action. ADEQ must actively solicit public review of and comment on all the alternatives under consideration.

Public Comment Period: A period during which the public can formally review and comment on various documents and ADEQ actions.

Record of Decision (ROD): A legal document that announces and explains the cleanup methods ADEQ will use at a Superfund/WQARF site. The ROD is based on information and technical analysis generated during the RI/FS, and on consideration of comments received during the public comment period for the PRAP.

Remedial Action (RA): Any action taken to investigate, monitor, assess, and evaluate the release or threat of release of hazardous substances or contaminants to the environment. It may also refer to the actual "cleanup" of the environment by various removal, treatment, monitored remediation, or corrective actions. The term "remedial action" is sometimes used interchangeably with the terms cleanup, removal action, response action, remedy, remediation, or corrective action.

Remedial Investigation (RI): Establishes the nature and extent of the contamination and the sources; identifies current and potential impacts to public health, welfare, and the environment; identifies current and reasonable foreseeable uses of lands and water of the site; and obtains and evaluates any information necessary for identification and comparison of alternative remedial actions.

Remedial Objectives (RO): Established remedial goals for the current and reasonably foreseeable uses of lands and waters of the site that have been or are threatened to be affected by a release of a hazardous substance.

Remediation: Cleanup or other methods used to remove or contain a toxic spill or hazardous materials.

Remedy: Cleanup method chosen for a site.

Responsible Party: An individual or company (*e.g.*, an owner, operator, transporter, or arranger of hazardous waste) that is responsible for the contamination problems at a Superfund/WQARF site. Whenever possible, responsible parties are required to clean up hazardous waste sites they have contaminated.

Responsiveness Summary: A summary of oral and written comments (and ADEQ responses to those comments) received during the public comment period.

Soil Vapor Extraction (SVE): Soil vapor extraction removes contaminant vapors from below ground for treatment above ground. SVE systems remove vapors from the soil above the water table by applying a vacuum to pull the vapors out. The method is used for chemicals that evaporate easily – such as those found in solvents and gasoline.

Superfund: The program operated under the legislative authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and supervising cleanup and other remedial actions. It provides for the cleanup of hazardous substances released into the environment, regardless of fault. The term Superfund also is used to refer to cleanup programs designed and conducted under CERCLA and its subsequent amendments.

Tetrachloroethene, Tetrachloroethylene, Perchloroethene, or Perchloroethylene (PCE): A clear, colorless liquid with a chloroform or sweet odor and a low boiling point. A solvent used for: dry cleaning; degreasing and drying metals and other solids; dissolving waxes, greases, oils, fats, and gums; and in other industrial applications. PCE is a potential occupational carcinogen. Evaporation of PCE increases as temperature increases.

Trichloroethene or Trichloroethylene (TCE): A colorless liquid used as a solvent, metal degreasing agent, and in other industrial applications.

Volatile Organic Compounds (VOC): A large group of carbon-containing compounds that are easily dissolved into water, soil, or the atmosphere and evaporate readily at room temperature. Examples of VOCs include PCE, TCE, benzene, toluene, ethylbenzene, and xylene. These contaminants are typically generated from metal degreasing, printed circuit board cleaning, gasoline, and wood preserving processes.

Water Quality Assurance Revolving Fund (WQARF): WQARF, also known as the State of Arizona Superfund, is the program and funding that is used to address hazardous substance releases within the state that are not covered by other specific programs.